

## Interoffice Memo

**DATE:** March 12, 2019

**FROM:**   
Margaret B. Pirkle, P.E., Chief Engineer

**TO:** Chief Engineer Divisions/Districts/Consultant Relations Committee

**SUBJECT: 4-ft Wide Flush Medians**

Guidelines for median usage on State Routes in Georgia are published in Chapter 6 of the GDOT Design Policy Manual (DPM). The guidelines are based on studies done by GDOT and others between 1988 and 1998, where median type, traffic volumes, and crash statistics were analyzed to identify obvious relationships<sup>1</sup>. As a result, the Department's policy on median usage was implemented in July 2000, and updated in 2003<sup>2</sup>. The policy identifies median types and widths that are considered standard with respect to design speed and traffic volumes. The traffic thresholds represent two-way volumes that could have a negative effect on acceptable gaps for uncontrolled left turning maneuvers.

In some cases, arterial widening projects, including GRIP corridors, have base and design year traffic volumes that are less than the 18,000 ADT and 24,000 ADT thresholds listed in the current policy. The projects may also be along sections of roadway with limited access points and a very low probability of future development. For example, areas where state right-of-way is parallel to agricultural operations or physical constraints such as a railroad or major utility, lakes, rivers, creeks, wetlands, steep slopes, and environmental resources.

Therefore, in an effort to provide additional design options for cases like this, the Department has decided to consider the use of 4-ft wide flush medians where it is practical to do so.

The factors the Department will use to consider the use of a 4-ft wide flush median are:<sup>3</sup>

1. Base year traffic is less than 10,000 ADT;
2. 24-hour truck percentage is less than 10%;
3. Limited number of access points along the roadway. Depending on the access density, a traffic microsimulation model may be required to demonstrate that mainline volumes along with other selected design controls will not adversely affect acceptable gaps for uncontrolled left turning maneuvers.

<sup>1</sup> GDOT Research Project No. 8602, dated November 1988, *Criteria for Two-Way Left-Turn Lanes vs. Other Medians*. Article presented at Fourth National Conference on Access Management, held August 13-16, 2000. *Georgia Study Confirms the Continuing Safety Advantages of Raised Medians over Two-Way-Left-Turn Lanes*.

<sup>2</sup> Interdepartment Correspondence dated January 7, 2003, from Frank L. Danchetz, P.E., Chief Engineer. *Design Guidance*.

<sup>3</sup> This reflects similar criteria presented to FHWA by GDOT on May 21, 1991, and accepted by FHWA on May 23, 1991.

4. No obvious crash history directly related to left-turns; and
5. 4-ft median widths should not be used in combination with other minimum geometric design criteria. Therefore:
  - a. Horizontal and vertical alignments will meet current AASHTO Green Book criteria for 10 mph over the design speed.
  - b. 12-ft wide travel lanes will be required.
  - c. Shoulders widths will meet current AASHTO Green Book criteria.

Subsequent design elements required to use a 4-ft wide flush median are:

1. Widening for left turn lanes will be required at intersections and major traffic generators; and,
2. Centerline rumble strips and enhanced striping will be installed.

The above criteria will be published in Chapter 6 of the GDOT Design Policy Manual. To ensure that appropriate studies and support is given to the decision, the approval of a Design Variance from the Department's Chief Engineer will be required before a 4-ft wide flush median design can advance to the final plan phase. The Design Variance must include the proposed typical section along with a plan & profile layout with curve data listed, and a traffic microsimulation model if required as noted in the criteria above.

Coordination with city and/or county planning and zoning officials should occur early in project development to determine the probability of development along project alignments. This coordination should support a decision to use a 4-ft wide flush median and should be noted in the Design Variance as rationale for the decision.

The Department's decision to consider 4-ft wide flush medians that meet these criteria is effective immediately. GDOT Project Managers should meet with their Office Administrators and the Director of Program Delivery to decide whether or not a project is at a suitable stage for assessment.

If you have any questions about these criteria, feel free to contact Brent Story [bstory@dot.ga.gov](mailto:bstory@dot.ga.gov) or Dan Pass [dpass@dot.ga.gov](mailto:dpass@dot.ga.gov) at (404) 631-1978.

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